Remarks:

Applicant appreciates the Examiner's careful review of this application, and his catching a problem with antecedent basis for the word "side" as relating to the inner and outer walls. In order to solve that problem, Applicant has deleted the word "side" from the claims, leaving the language "outer wall" and "inner wall", for which there is proper antecedent basis.

Applicant has also submitted an information disclosure statement listing U.S. Patent 5,518,695 "Goodspeed" by fax on Dec. 21, 2004.

The Office Action referred to U.S. Patent 418,835 "Allington". That reference is a cyclone with a tangential inlet that essentially has no inner side wall. It should be noted that Figure 1 is a section view taken along the line x-x of Figure 2, which is above the inlet, so what appears to be the inner wall of the inlet is actually the cylindrical wall of the portion of the cyclone above the inlet. That wall is continuous, forming a full circle, so it cannot be the inner wall of the inlet. The other wall that is shown in Figure 1 is the flange 6, which comes up from the bottom of the chamber. Figure 2 is a vertical section view along the line y-y of Figure 1, and it shows only a very short inner wall in the inlet area, nothing that extends around for any angular distance.

It also referred to U.S. Patent 678,451 "Allington". This reference shows a constant width straight tangential inlet G.

It also referred to U.S. Patent 1,717,369 "Clements", which is an air cleaner for an internal combustion engine. In that case, the inlet 18 is tangential to the cylindrical casing 16.

Claims 1-9, 12, 13, 15, 16, and 18 have been canceled.

Claim 10 has been amended to depend from claim 14.

Claim 14 has been amended. This claim recites that the inner wall of the inlet path has a constant radius that is substantially the same as the radius of the cyclone body wall, and the inner wall of the inlet path is a separate wall from the cyclone body wall and is centered on a different vertical axis from the central vertical axis of the cyclone body wall. This claimed arrangement is neither taught nor suggested in the prior art.

It is hoped that the confusion noted in paragraph 2 of the Office Action is cleared up by the recitation in the amended claim 14 that the inner wall is centered on a different vertical axis from the central vertical axis of the cyclone body wall. In this manner, the inner wall has the same radius but is separate from the cyclone body wall. An example of such an inner wall is shown in Figure 7.

In the Allington '835 reference, to the extent that there is an inner wall to the inlet, it is the wall of the cylindrical cyclone. It is not a separate wall with substantially the same radius as the cyclone body but centered on a different vertical axis. Allington '451 teaches the use of a straight tangential inlet. Goodspeed teaches that the inner wall of the inlet is the cyclone body wall. Clements has a tangential inlet, with the inner wall having a slight curvature, but the curvature is not anywhere near that of the cylindrical body.

Applicant respectfully requests allowance of the claims currently pending in this application. If there are any further problems, Applicant's attorney would appreciate a phone call from the Examiner to help expedite their resolution.

Respectfully submitted,

Theresa Camoriano

Theresa Fritz Camoriano
Reg. No. 30,038
Camoriano and Associates
8225 Shelbyville Road
Louisville KY 40222
phone 502-423-9850
fax 502-426-1167